# 400VA/600VA/800VA
# User's Manual

K01-0000004-01

## SAFETY WARNINGS

**(SAVE THESE INSTRUCTIONS)**

This manual contains important safety instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate your UPS.

This equipment can be operated by any individuals with no previous training.

The socket-outlet shall be installed near the equipment and easily accessible.

During the installation of this equipment it should be assured that the sum of the leakage currents of the UPS and the connected loads does not exceed 3.5mA.

Attention, hazardous through electric shock. Also with disconnection of this unit from the mains, hazardous voltage still may be accessible through supply from battery. The battery supply should be therefore disconnected in the plus and minus pole at the quick connectors of the battery when maintenance or service work inside the UPS is necessary.

Do not dispose of batteries in a fire, the battery may explode.

Do not open or mutilate the battery or batteries, released electrolyte is harmful to the skin and eyes.

## INSTALLING YOUR UPS SYSTEM

### _UNPACKING_

Inspect the UPS upon receipt. The box should contain the following:
UPS Unit×1; IEC Power Cord×1;USB Cable×1;User Manual×1; Management software Disk×1

### _HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT_

1. Insure that the equipment plugged into the battery power-supplied outlets does not exceed the UPS unit's rated capacity (400VA/240W for Value 400E, 600VA/360W for Value 600E, 800VA/480W for Value 800E). If rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the fuse blow.

2. If the power requirements of your equipment are listed in units other than Volt-Amps (VA), convert Watts (W) or Amps (A) into VA by doing the calculations below. Note: The below equation only calculates the maximum amount of VA that the equipment can use, not what is typically used by the equipment at any one time. Users should expect usage requirements to be approximately 60% of below value.

### _TO ESTIMATE POWER REQUIREMENTS_

1. _____ Watts (W) x 1.67 = _____ VA or _____ Amps (A) x 230 = _____ VA

2. Add the totals up for all pieces of equipment and multiply this total by 0.6 to calculate actual requirements. There are many factors that can affect the amount of power that your computer system will require. The total load that you will be placing on the battery-powered outlets should not exceed 80% of the unit's capacity.

### _HARDWARE INSTALLATION GUIDE_

_Before installation, please read and understand the following instructions:_

1. **Placement**
   The UPS must be installed in a protected environment away from heat- emitting appliances such as a radiator or heat register. Do not install this product where excessive moisture is present.
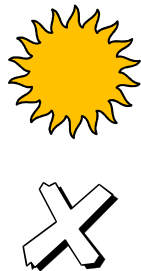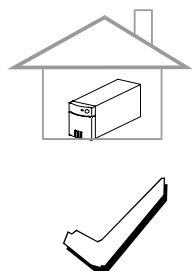


2. **Ventilation**
   The location should provide adequate air flow around the UPS with one inch minimum clearance on all sides for proper ventilation.

3. **Charge the Battery**
   Your new UPS may be used immediately upon receipt. However charge loss may occur during shipping and storage. So charging the battery for at least 8 hours is recommended to insure that the battery is fully charged. (To recharge the battery, simply leave the unit plugged into an AC outlet.)
   **This UPS can be charged even when UPS is not turn on.**

4. **Connect to AC**
   Use German power cord to connect the UPS to a wall outlet. Please avoid using extension cords and adapter plugs. (To maintain optimal battery charge, leave the UPS plugged in at all times.)

5. **Connect the Load**
   Connect the equipment to your UPS outlets. The IEC power cord coming with the unit are used to connect your computer and monitor to the UPS. **Items such as copiers, laser printers, vacuums, space heaters, or other large electrical devices SHOULD NOT be connected to the UPS.** Please make sure that the total loads of your equipments are less than the maximum total power load of your UPS.
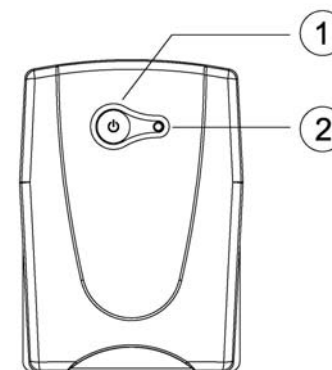


6. **Connect to Computer:**
   Install your software and accessories. To use the software, simply use the enclosed serial interface or USB cable to connect the UPS unit and your computer.
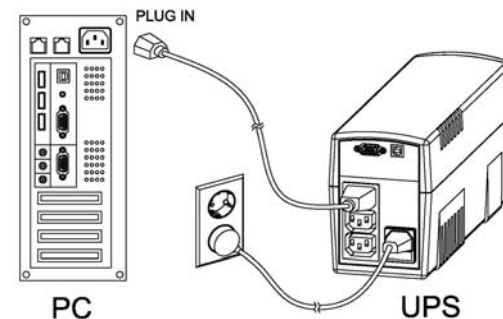
## BASIC OPERATION

### _FRONT PANEL DESCRIPTION_
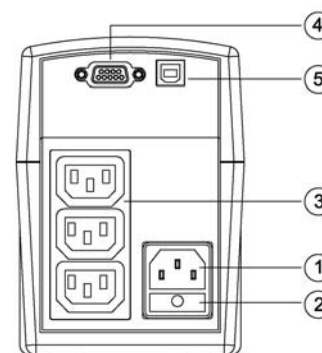


**1. Power Switch**

Press the power switch to turn the UPS ON or OFF.

**2. Power On Indicator**

This LED is illuminated when the utility condition is normal and the UPS outlets are providing "clean power", free of surges and spikes.

### _REAR PANEL DESCRIPTION_



1. **AC Inlet**
   Connect to utility power through the input power cord

2. **Input Fuse**
   The fuse provides optimal overload protection.

3. **AC outlet**
   The UPS provides 3 outlets for connected equipment to insure temporary uninterrupted operation during a power failure and against surges and spikes.
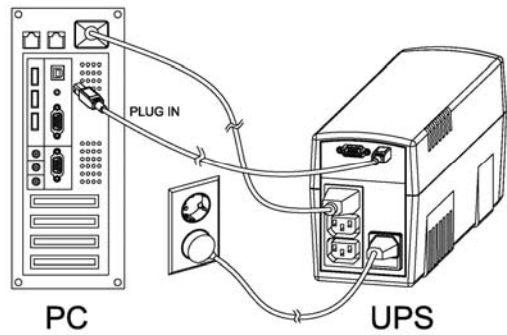
4. **Serial Port to PC**
   This port allows connection and communicates from the DB-9 serial on the computer to the UPS unit. The UPS communicates its status to the PowerPanel® software. This interface is also compatible with the UPS service provided by **Windows 98, Windows ME, Windows NT, Windows 2000, Windows XP, Windows Server 2003/ Vista.**
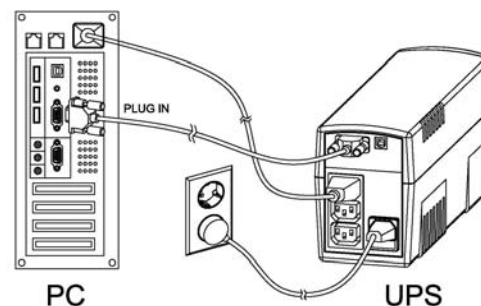
**5. USB Port to PC**
This port allows connection and communication from the USB port on the computer to the UPS unit. The UPS communicates its status to the **PowerPanel**® **Personal Edition** software. This interface is also compatible with the UPS service provided by **Windows 98, Windows ME, Windows NT, Windows 2000, Windows XP, Windows Server 2003.**

**NOTE:** Only one of these two ports can be used as communication and control of the UPS unit at one time.



| The unit is not providing battery power. | Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit. |
|---|---|
| The serial cable is not the cable that was provided with the unit. | You must use the cable included with the unit for the software. |

## Functional Test

### AC Mode
The UPS delivers power to the loads derived from the utility and maintains proper battery charge. It also regulates the output voltage to within a narrow range.

### On-Battery Mode
The UPS operates on battery when the line voltage or frequency has fallen outside the limits. Local users are alerted to this mode of operation by visual and audible indicators. The UPS provides power to the load from the battery and through its inverter and the output voltage and frequency of the UPS are regulated within a narrow range

**1. Switch On**
Press the power switch on the front panel then the green LED will light up.

**2. Switch Off**
Press again the power switch, the LED on the front panel will go off.

**3. Cold Start / Start on Battery:**
This UPS can be turned on even when AC is not present.
Press the power switch on the front panel then the green LED will light up and flashing.

## ROUTINE MAINTENANCE AND STORAGE

### ROUTINE MAINTENANCE
1. Use dry soft clothes to clean the front panel and plastic parts. Do not use any detergent that contains alcoholic ingredient.

2. The expected lifetime of the battery is around 3 years. Improper operation and harsh environment will reduce the actual lifetime.

3. Unplug the UPS from power inlet if the UPS will not operate for long period of time.

### STORAGE
1. First turn off your UPS and disconnect its power cord from the wall outlet. Disconnect all cables connected the UPS to avoid battery drain.

2. The UPS should be stored in a cool dry location.

3. Make sure the battery is fully charged before the UPS is stored.

4. For extended storage in moderate climates, the battery should be charged for 12 hours every 3 months by plugging the power cord into the wall receptacle and turning on the main switch. Repeat it every 2 months in high temperature locations.

## TROUBLE SHOOTING

| Problem | Possible Cause | Solution |
|---|---|---|
| The UPS does not perform expected runtime. | Batteries are not fully charged. | Recharge the battery by leaving the UPS plugged in. |
| | Battery is slightly worn out. | Contact CyberPower Systems at service@cyberpower-eu.com |
| The UPS will not turn on. | The on/off switch is designed to prevent damage by rapidly turning it off and on. | Turn the UPS off. Wait 10 seconds and then turn the UPS on. |
| | The unit is not connected to an AC outlet. | The unit must be connected to a 220-240V 50/60Hz outlet. |
| | The battery is worn out. | Contact CyberPower Systems at service@cyberpower-eu.com |
| | Mechanical problem. | Contact CyberPower Systems at service@cyberpower-eu.com |
| Outlets do not provide power to equipment | Fuse is blown due to overload | Turn the UPS off and unplug at least one piece connected equipment. Unplug the power cord of the UPS then remove the fuse compartment beneath the power inlet of the UPS and replace the blown fuse with a spare one. Lock the compartment back to the UPS. Connect power cord then turn the UPS on. Make sure that your spare fuse meets the specification. |
| | Batteries are discharged | Allow the unit to recharge for at least 4 hours. |
| | Unit has been damaged by a surge or spike. | Contact CyberPower Systems at service@cyberpower-eu.com |
| PowerPanel® or PowerPanel® Personal Edition is inactive (all icons are gray). | The serial/USB cable is not connected. | Connect the serial/USB cable to the UPS unit and an open serial port on the back of the computer. You must use the cable that came with the unit. |
| | The serial/USB cable is connected to the wrong port. | Try another serial/USB port of your computer. |

## TECHNICAL SPECIFICATIONS

| Model | Value 400E | Value 600E | Value 800E |
|---|---|---|---|
| Capacity   (VA) | 400VA | 600VA | 800VA |
| Capacity   (Watts) | 240W | 360W | 480W |
| **Input** | | | |
| Input Voltage Range | 165-270Vac | | |
| Frequency Range | 45~65 Hz (Auto Sensing) | | |
| **Output** | | | |
| On Battery Output Voltage | Simulated Sine Wave at 230Vac +/-10% | | |
| On Battery Output Frequency | 50/60 Hz | | |
| Overload Protection | On Utility: Fuse, On Battery: Internal Current Limiting | | |
| **Physical** | | | |
| Total # of UPS Receptacles | (3) IEC 320 C13 | | |
| Maximum Dimensions | 32cm(L)*10cm(W)*14cm(H) | | |
| Weight | 4.2 Kgs / 9.3 Lbs | 5.3 Kgs / 11.7 Lbs | 6.1 Kgs / 13.4 Lbs |
| **Battery** | | | |
| Sealed Maintenance Free Lead Acid Battery | 12V / 4.5Ah x1 | 12V / 7Ah x1 | 12V / 8.5Ah x1 |
| Typical Recharge Time | 8 Hours | | |
| **Warning Diagnostics** | | | |
| Indicators | Power On / Using Battery | | |
| Audible Alarms | On Battery, Low Battery, Overload | | |
| **Environmental** | | | |
| Operating Temperature | +32°F to 95°F ( 0°C to 35°C ) | | |
| Operating Relative Humidity | 0 to 95% NON-CONDENSING | | |
| **Communication** | | | |
| 1. PowerPanel® Personal Edition Software (for USB Port) 2. PowerPanel® Software (for Serial Port) | Windows 98/ME/2000/NT/XP/Server 2003/Vista | | |
| **Management** | | | |
| Auto-Charger | Yes | | |
| Auto-Restart | Yes | | |
| USB | Yes | | |

## DEFINITIONS FOR ILLUMINATED LED INDICATORS

| LED | Alarm | Fuse | Condition |
|---|---|---|---|
| On | Off | Normal | Normal |
| Flash | Two Beeps | Normal | Utility Failure - The UPS is providing battery power to outlets. |
| Flash | Rapid Beeps | Normal | Utility Failure - The UPS is providing battery power.   The rapid beeps indicate the battery will run out of power shortly. |
| On/Flash | Long Beep | Normal/ Blown | Overload - Occurs when connected equipment exceeds the rating of the unit. Turn the UPS off and unplug at least one piece of equipment from the UPS. Check the fuse and do the replacement if necessary. Turn the UPS on. |

For more information, visit eu.cyberpowersystems.com or contact
**CyberPower Systems B.V.**

Flight Forum 3545 5657DW Eindhoven The Netherlands

Tel: +31 40 2348170, E-MAIL: sales@cyberpower-eu.com
**CyberPower Systems Inc. (USA)** 4241 12th Avenue East Suite 400 Shakopee, MN 55379, U.S.A.
Tel: +1 952 4039500, Fax: +1 952 4030009, E-MAIL: sales@cyberpowersystems.com
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CyberPower warrants to you, the original purchaser, that CyberPower UPS will be free from defects in design, assembly, materials and workmanship for two years ( battery is only one year) from the date of original purchase.   Any warranty services, please contact your local dealers or distributors.